



BRIAN HEAD TOWN
2008 WATER CONSERVATION PLAN

Introduction

Brian Head Town is a resort community nestled in a little valley on top of the mountains; The Town Hall is at 9600 elevation with the Brian Head Peak at over 11000 we did not have any major growth since the 80's. In 2004 we saw a boom of single family homes as well as in the following years. In 2005 we issued the first permits since the 80's for commercial projects. We currently have plans submitted for 1562 new ERU's within the Town boundaries and a possibility of several hundred more within the annexation boundaries

Description of our Town and its Water System

Located in Iron County, Brian Head is the Highest Little Resort Town in North America. We are surrounded by five (5) National Parks. Our Annual snow fall is approx 400 inches. Our population varies from weekday to weekend to Holiday, Winter to Summer. The 2000 Census recorded 110 permanent residents, the weekends can see up to 5000 or more people. With the elevations of Brian Head our summers are mild with an average summer temp in the low 70's. Traditionally our summers used to be quiet, however, with the recent years development in the nearby Cities and States, cooler days are large attraction for summer activities. The large attraction that Brian Head has in the summer is the Trail System. We have many people that traverse through the town solely on the trail system.

We have two resorts with 8 ski runs and each fall or early winter the Resorts will draw from the Town Water System to make snow. We have only one (1) park in the Town Limits, three (3) municipal buildings consisting of a Town Hall, Fire Station, and the Public Works shop, 202 residents and vacation homes, 1078 condominium and hotel, 31 commercial and 21 industrial connections. With the elevations and short spring/summer seasons there is almost no lawns or major landscaping anywhere in the Town, it is all native vegetation. We also have Unincorporated County properties within our Town Annexation boundaries that are now allowed to hook into our Town Water and Sewer System. The Town also sells bulk water to residents within the Annexation boundaries on water tanks.

Inventory of Water Resources

The Town currently has six (6) water sources all from ground water four (4) from springs and two (2) wells. All sources contribute to our culinary usage and during the winter a designated amount of water is allocated to snowmaking. Spring overflow, which is beyond our water right or usage, is released into the Parowan Canyon (Parowan Irrigation District). Appropriate water rights are assigned to each source supply.

Water Usage

Determining gallons per day per capita (gpcd) in a recreational community is estimated due to the lack of exact occupancy figures. Using a maximum occupancy and the highest average daily water usage for

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our peak month results in 95,096 gpcd. This figure is considered low, nevertheless, this figure will be used until more accurate data can be established. Regardless every effort will be made to reduce the per capita consumption. An exact goal will not be set at this time.

Town water sources	Water Right #
Mammoth Hill Spring	75-1514, 1515
Brian Head Seep Spring	75-1514, 1515
Salt Pile	75-1514, 1515
Decker Spring	75-1514, 1515
Town Hall Well	75-661, 662, 663, 664
Crystal Mountain Well	75-1693, 1704

The Town currently uses 34,710,040 gallons from these sources, per year.

Existing Water Conservation Programs

The Town of Brian Head adopted a Water Conservation Ordinance in response to a water shortage during the early 1990's. This ordinance will be updated upon determination of changes to be incorporated and upon completion of a Water Master Plan. A copy of the Water Conservation Ordinance is attached.

Water Problems, Conservation Measures and Goals

The Town has identified a few problems with water usage, seasonal residents will leave taps running to avoid freezing, some of the systems are outdated, and some homeowners have been identified hooking into the system without permission. We encourage the residents to not leave the taps running, and to set their furnaces at a low temp to keep the house from freezing. The Town is in the process of updating the systems to get a more accurate reading on water usage. New meters have been installed at storage facilities and sources. We are currently working on updating residential meters.

Water Master Planning

The Town has recently started working to develop a plan for future water resource development and distribution. One of the expected outcomes from this plan is a manage program of future water storage, distribution and transmission. This Water Master Plan will be adopted by the Town Council and used for policy decisions regulating water within the Brian Head Town Annexation Boundaries.

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We encourage all the new developments to use low flow plumbing fixtures, native vegetation for landscaping and all new construction is to have a meter installed.

Wastewater Treatment and Discharge Facility Initiatives

Waste water is currently being sent to the Parowan City Sewer Treatment facility in a joint effort to consolidate sewage involvement in the area.

Management and Recordkeeping

An increased emphasis has been placed upon consistent and accurate measurement of water production and distribution. As a result The Town has completely updated the water reading system with use of SCADA and these are monthly readings taken at all the supply sources to determine water production and usage. Overflow measurements are then subtracted from the total production to determine actual culinary usage by the Town. This information is then compared to previous years to identify trends and increased culinary demand. All records are kept on an electronic data base. Consistent and accurate measurements will benefit officials in determining policies and practices consistent with water conservation.

Leak Detection, Control and Management

An automated flow control and measurement system is in place and utilized to determine areas of potential water leaks or excess usage. In the past this system significantly contributed to the identification and location of main and service line leaks.

Emergency Response Planning

An emergency preparedness and readiness plan has been developed to cope with potential problems. An integral part of this plan includes water conservation and includes a variety of actions up to and including rationing.

Objectives and goals to compliment Water Conservation

The Town is installing meters at every new or recently serviced connection. A few water users are connected to the main service line without a meter thus creating both a backflow, shutoff and eventual metering/measuring problem. The goal is to ensure every connection is serviced by a meter and that the Town water supply is protected from potential backflow contamination. The Town is proceeding towards meter readings and recordkeeping that will support water billing and aide future water management decisions. The first step in this process is to identify all non-metered connections and

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install meters, followed by meter reading at all locations even if just to determine points of excessive water use.

Water Pricing, Billing and Rates

The Town has a current adopted Consolidated Fee Schedule, as of now it is a flat monthly rate of House/Condo/Office/Retail is \$50.70, Hotel/Motel 47.88 and Restaurant 138.01 per month. Bulk water pricing is \$100 per 1000 gal. The goal of the Town is to have all connections metered and billed on a water usage rate.

BRIAN HEAD TOWN

ORDINANCE NO. 91-001

AN ORDINANCE AMENDING BRIAN CODE 22-3-9, 10, AND 11 (1984) AND AMENDING TITLE 22, CHAPTER 3 OF THE BRIAN HEAD CODE.

ORDINANCE NO 91-001 was passed by Brian Head Town Council, Brian Head, Iron County, State of Utah, amending Brian Head Code 22-3-9, 10, and 11, 1984, and adopting certain water conversation regulations, and penalties for violations.

WHEREAS, Southern Utah generally, and Brian Head Town specifically, have been experiencing a continued drought pattern for over three years; and

WHEREAS, as a result of the continued drought pattern, there has been marked reduction of water flow in the various spring sources upon which Brian Head Town relies, in part for culinary water, together with a correlating drop in the underground aquifer and general water table of Southern Utah which has reduced pumping flows from the Brian Head Town municipal well; and

WHEREAS, in response to the drought conditions all over the Western United States, and in response to a general heightened environmental awareness, water conservation has become a critical priority in Brian Head Town.

BE IT HEREBY ORDAINED, by the Brian Head Town Council, that Brian Head Code Sections 22-3-9, 10, and 11, be amended to read as follows:

22-3-9. WASTE OF WATER.

Water users, utilizing water from the Brian Head Town municipal water system, shall not permit the wasteful consumption and use of water. If, in the judgment of Brian Head Town Water Department staff, or any of the officers of the Town, a Brian Head Town water user engages in practices which result in the needless waste of water, and continues to do so after reasonable notice to discontinue such wasteful use has been given, the Water Department staff, or any other officer of the Town, may refer the matter to the Brian Town Attorney for appropriate prosecution. Wasteful water uses which shall be subject to prosecution shall include, without limitation, the following:

- a) Prolonged, unattended, outdoor watering of landscaping, lawns, and other vegetation;

- b) Failure to replace or repair leaky pipes, water fixtures, and other components of an individual water users' water system;
- c) The continuous running of taps, faucets and water fixtures, within a premises in order to avoid water line freeze ups;
- d) Continued filling and draining of hot tub, jacuzzi type water fixtures, of 150 gallons or more, with every use, if chemical treatment, and re-circulating plumbing, can be utilized to recycle the water safely for multiple usage.

22-3-10. WATER SAVING FIXTURES.

- a) Beginning with the adoption of this Ordinance, all new construction in Brian Head Town shall require the installation of water conserving fixtures including and without limitation, low volume water efficient toilets, not to exceed a three gallon tank capacity, restricted flow shower heads and faucets in bathrooms, residential, commercial washing machines, dishwashers, ice makers, and other water fixtures.
- b) Jacuzzi type bath tubs, hot tubs, or spas, shall not exceed 150 gallon capacity except in "common areas", in condominium and hotel type developments in which hot tubs are part of the common area amenities package. All jacuzzi type tubs, hot tubs, and spas that exceed 150 gallons as allowed under this Ordinance, shall include pumping and filter systems providing for the chemical treatment and recycling treatment of water, and shall be tested by public health officials. No single unit condominiums, or hotel/motel type units, shall install single unit jacuzzi's, spas, or hot tubs of any type.
- c) Within 30 days of adoption of this Ordinance, all shower heads and faucets in bathrooms, at Brian Head Town, shall be retro-fitted with restricted flow shower head and faucet devices. All toilets, shall be retro-fitted with either displacement devices, or replaced with water efficient toilets, having a maximum three gallon tank capacity.

22-3-11. PENALTY.

Any wasteful use of water or unlawful installation by an individual or entity, as provided under this Ordinance, shall be considered an infraction and upon conviction,

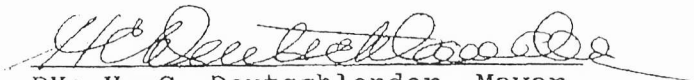
shall be subject to fines of up to \$500 as provided under Utah Code Annotated. Each separate day such violation continues, shall constitute a separate offense under this Ordinance.

BE IT FURTHER ORDAINED, that Brian Head Ordinance No. 91-001 shall become effective immediately upon passage by the Brian Head Town Council in the interest of promoting and protecting the immediate health, safety, and welfare of Brian Head citizens.

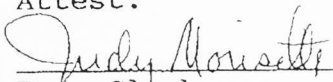
Brian Head Town Ordinance Number 90-001 was adopted by the Brian Head Town Council on the 26th day of February, 1991 on the following vote:

H. C. Deutschlander, Mayor	Aye <u>X</u>	Nay _____
Dean, Reeder Councilperson	Aye <u>X</u>	Nay _____
Robert Schlundt, Councilperson	Aye <u>X</u>	Nay _____
Rose Weaver, Councilperson	Aye <u>X</u>	Nay _____
Les Griffin, Councilperson	Aye _____	Nay _____

DATED this 7th day of March, 1991.


BY: H. C. Deutschlander, Mayor
Brian Head Town

Attest:


Town Clerk